DOCUMENT RESUME

ED 177 849 FL 010 027

AUTHOR Bansal, R. K.
TITLE The Intelligibility of Indian English. Monograph No. 4.
INSTITUTION Central Inst. of English and Foreign Languages, Hyderbad (India).
PUB DATE 76
NOTE 36p.; Abridged version of Ph.D. Dissertation, University of London, United Kingdom
AVAILABLE FROM Central Institute of English and Foreign Languages, Hyderabad-500 007, India ($1.00)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Consonants; Contrastive Linguistics; Descriptive Linguistics; Dialect Studies; *English; Language Research; Language Usage; *Language Variation; *Listening Comprehension; *Mutual Intelligibility; Phonetics; *Phonology; *Pronunciation; Regional Dialects; Standard Spoken Usage; Suprasegmentals; Vowels
IDENTIFIERS India; *Indian English

ABSTRACT

Twenty-four English speakers from various regions of India were tested for the intelligibility of their speech. Recordings of speech in a variety of contexts were evaluated by listeners from the United Kingdom, the United States, Nigeria, and Germany. On the basis of the resulting intelligibility scores, factors which tend to hinder intelligibility (i.e., phonetic peculiarities of Indian English) are analyzed, and suggestions for the improvement of Indian English are offered. (JB)

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ED177849

The Intelligibility of Indian English

R. K. BANSAL

Summary of a thesis approved by the University of London for the award of Ph. D.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Monograph No. 4
Second (abridged) edition
1976

FL010027

Central Institute of English and Foreign Languages
Hyderabad–500 007, India

First Edition 1969
Second (Abridged) Edition 1976

Price Rs. 3-00
£ 0-50
$ 1-00

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	Section 7.4.4, S.No. 3, Column 4	wcleome	welcome
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PREFACE

This is an abridged version of the Institute's Monograph No. 4 published in 1969 and since gone out of print. The Monograph is based on the research conducted by the author in 1964–66 under the supervision and guidance of Mr. (now Professor) A. C. Gimson at the Department of Phonetics, University College, London.

The purpose of this research was to examine varied specimens of Educated Indian English and to attempt a measurement of their intelligibility to educated listeners of different nationalities. The project involved the evolution of techniques of intelligibility testing as applied to (i) connected speech, (ii) the reading of passages, (iii) sentences, and (iv) words. The aim was to test the efficiency of Educated Indian English as a means of communication with people of different countries, to discover features in Indian English that hamper intelligibility and to suggest improvements in order to make Indian English more efficient.

The original thesis is available at the University of London library and at the Central Institute of English and Foreign Languages, Hyderabad.

Hyderabad
1976

R. K. BANSAL

The Intelligibility of Indian English

1. Introduction

Indian English as spoken by educated people in India does not differ radically from native English in grammar and vocabulary. But in pronunciation it is very different from either British or American English, and even within India there are a large number of regional varieties, each different from the others in certain ways and retaining to some extent the phonetic patterns of the Indian language spoken in that particular region.

2. The Question of Standards

It is a matter for urgent consideration what kind of English is required in India. The view that the only suitable model for Indian teachers and pupils is the Received Pronunciation of England is not shared by the vast majority of the people in the country, not even by distinguished teachers of English. Those who went to school in the twenties of this century sometimes had teachers of English who spoke English well and had in some cases been taught by native English teachers. There were government and missionary colleges in India who even in the thirties had native English teachers on their staff. Until 1947, when

India became independent, most of the higher government officials were British, and there were a large number of British engineers and businessmen working in important commercial and industrial centres. In this way there was still some contact with native English, and some gifted people were able to acquire a good pronunciation of English. But all this has changed now. With fewer native English speakers in the country, the contact with native English is virtually absent, and the standards of spoken English are falling so rapidly from one generation to another that, unless some standardisation is insisted upon, a hundred years from now it is likely that Indian English will be so different from native English that it will not be intelligible outside India.

It has to be realized that not all forms of Indian English can be accepted as models. Every region has marked features of pronunciation in English, but in every region there are people who have shaken off the gross features of regional accent and speak a more 'neutral' form of Indian English. It is also true that in every region there are good speakers of English, and bad speakers of English, the terms 'good' and 'bad' referring to degrees of approximation to native English or to the best types of Indian English, and also to qualities of clear, effective and intelligible speech.

Halliday, McIntosh and Strevens suggest "two basic criteria to determine whether a variety of English is acceptable for use as an educational model. First, it must be a variety actually used by a reasonably large body of the population, in particular by a proportion of those whose level of education makes them in other respects desirable models ....Second, it must be mutually intelligible with other varieties of English used by similar professional and educated groups in other countries".[1] It is suggested that imported forms of English should be excluded and mutual intelligibility attained by adopting standard English grammar and lexis and keeping the number of phonological units close to those of other educated accents.

3. The Intelligibility of Indian English

Adopting intelligibility as the basic criterion for the efficiency of a dialect, the present writer undertook an examination of varied specimens of Educated Indian English and attempted a measurement of their intelligibility to educated listeners of different nationalities, those speaking English as their mother tongue and also those speaking it as a second

1. Halliday, M.A.K., McIntosh, A., and Strevens, P.,
The Linguistic Sciences and Language Teaching,
London, Longmans, Green, 1964, Chapter 10, Section 6, Page 296.

language. The project involved the evolution of techniques of intelligibility testing as applied to (i) connected speech, (ii) the reading of passages, (iii) sentences, and (iv) words. The aim was to test the efficiency of Educated Indian English as a means of communication with people of different countries, to discover features in Indian English that hamper intelligibility and to suggest improvements in order to make Indian English more efficient.

4. The Experimental Procedure Adopted for Intelligibility Tests

4. 1. The Test Material Used

For an investigation into the intelligibility of Indian English it was necessary to collect representative specimens on tape. Before making any recordings, however, a decision had to be taken regarding what material was to be recorded.

Various types of material are used for intelligibility tests—ranging from connected speech to isolated sounds. Among these the one that reproduces to the highest degree the ordinary situation of communication through speech in real life is conversation or connected speech. The exchange of information by conversation is the commonest use of speech, but it is not easy to re-create a real conversation in an experimental situation.

4. 1. 1. Connected Speech

The recording of 'texts', that is, of what people say in words of their own choice, is perhaps the best material for experimental work on the intelligibility of foreign accents of English. It was, therefore, decided that for the purpose of this research the first part of each recording should consist of five minutes of connected speech during which the speaker talked about himself and his work and interests. An objection is sometimes raised to the use of this kind of material for intelligibility tests, on the ground that if the aim is to test the intelligibility of a speaker's pronunciation, the test should be a pure test of pronunciation, and all other factors such as contextual clues should be avoided. This view seems to ignore the fact that 'context' is always part of the situation in which communication through speech takes place, and an experiment to be valid should test forms of speech in conditions as close to those of real life situations as possible. Moreover, it is not reasonable to ask a listener to recognise isolated words read from a list by a speaker with an unfamiliar accent. In real life a listener takes a little time to become accustomed to the unfamiliar phonetic features or a slightly different phonemic system in the speech

of a foreigner or of a person from another part of the same country. After an initial period of adjustment he may have very little difficulty in understanding the speaker.

4. 1. 2. Set Passages for Reading

The recording of connected speech gave the speakers perfect freedom to talk about any subject they liked, and the content as well as the language was expected to be very varied. It was therefore considered desirable to have in addition a uniform standardized passage to be read aloud by all the speakers. There was, however, one difficulty in setting the same passage for all the speakers. It would mean that the same listener could not be asked to listen to more than one speaker, because his remembrance of parts of the passage would affect his score at a second sitting. Ideally speaking, if the intention is to test different types of speech, the materials and the listeners should be the same. A compromise had therefore to be evolved. It was decided that no listener should be asked to take part in more than three sittings and three comparable passages should be used. The slight variation in length from one passage to another[1] and the slight difference of register[2] were not likely to affect the level of intelligibility, and this was later confirmed by a random check.

4. 1. 3. Sentence Material

Most intelligibility tests use sentence material, and in ordinary conversation a sentence is very often a complete utterance. It was therefore decided that three comparable lists of short, everyday sentences should be included in the material for intelligibility tests. These lists of sentences were all prepared in exactly the same way, and each of them contained forty isolated sentences. The first twenty sentences had a key word each, containing one of the twenty English vowel phonemes. The next ten sentences brought in key words containing some of the difficult consonants and consonant clusters—those that constituted probles for Indian learners. The next five sentences brought in some of the problems of word stress and weak forms, and the last five sentences brought in some important patterns of intonation. It should, however, be pointed out that the purpose of the test was not to assess the speaker's ability to produce the phonemic contrasts and the stress and intonation patterns of normal English. It

1. This was necessitated by the condition that every passage should have all the English segmental phonemes and still read like a connected piece of normal English.

2. "The name given to a variety of language distinguished by use is 'register'." Halliday, McIntosh and Strevens, *op.cit*, Chapter 4, Section 4, Page 87.

was to discover the facts about intelligibility and how it was affected by divergences from normal English. The three lists of sentences were so identical in design that they were presumed to be equally difficult. This was later confirmed by a random check.

4. 1. 4. Word Material

The commonest material used for articulation tests consists of word lists; and while tests with word lists are not valid as tests of the intelligibility of a particular type of spoken English, they have their own advantages. They can be standardised more easily; a number of comparable lists can be used, or the same list, if it is a long one, can be used a number of times. The tests are easy to administer and score, and they reveal the features of pronunciation that make correct perception on the part of the listener difficult. It was considered desirable to have some word material also for this research, because it would enable specific points of pronunciation to be tested, and would pin-point areas of potential difficulty, features beyond the word level having already been tested with connected speeches, passages and sentences. A list of fifty common words, mostly monosyllables, was prepared—30 words containing all the twenty English vowel phonemes in certain positions, and 20 words containing some of the difficult consonants and consonant clusters. The words were then arranged in three different ways at random to give three alternative lists. To each list were then added ten words of more than one syllable to bring in accentual features. Three separate lists of ten words each were used for this purpose. In this way three lists of sixty words each were prepared for word articulation tests.

4. 1. 5. Alternative Choice Word Test

It was desirable to test whether some of the important phonological contrasts of normal English were maintained by Indian speakers and how far divergences led to confusion between minimal pairs, between other words likely to be confused, and between words involving functional stress change. An alternative choice word test was therefore devised. It consisted of forty words which each speaker recorded, and the listener had to choose between two given alternatives in each case. There were twenty words for testing vowel contrasts, fifteen for testing consonant contrasts, and five for testing functional stress shift. The list was arranged at random.

4. 2. Collection of Recorded Specimens of Speech

It was decided that a few samples of Educated Indian English, representative of some of the important language communities, should be

collected for examination and intelligibility tests. The speakers had to be people sufficiently educated to be able to speak English with a reasonably correct standard of usage, as far as vocabulary and grammar was concerned. It was, therefore, necessary to restrict the choice of speakers by having only those who had either taken a university degree, or pursued courses of professional or technical training after completing the secondary school certificate course, which includes about five years' study of English, usually beginning at the age of 11.

Fourteen Indian speakers were recorded in London. Thirteen of them were students, but their subjects of study covered a very wide range—tool engineering, marine engineering, chemical engineering, physics, botany, geography, history, art, Swahili and the teachig of English. One speaker was employed in the tea trade as a tea taster. In addition, ten recordings were made at the Central Institute of English, Hyderabad, India, by Mr. P. B. Dave, Research Fellow, using the same test material. Eight of the speakers recorded were teachers of English in universities, colleges and schools, who had attended a course of training at the the Central Institute of English; one was an office superintendent, and one was a technical assistant.

The twenty-four Indian speakers recorded were all men in the age range 19-40. There were 10 Hindi speakers (4 each from Uttar Pradesh and Bihar, and one each from Delhi and Rajasthan), 3 Telugu speakers, 3 Urdu speakers, 3 Punjabi speakers, and 5 speakers with other languages as their mother tongues—Bengali, Tamil, Gujarati, Malayalam & Assamese. The speakers represented different degrees of proficiency in English pronunciation, but were all unmistakably Indian in their accent.

In order to assess the intelligibility scores obtained with Indian English, a 'norm' was required as the basis for comparison. A controlled experiment was therefore necessary with British speakers and listeners speaking the same form of English. Four speakers of Educated Southern British (R. P.) were therefore recorded and these served as a small 'control' group.

4. 3. The Choice of Listeners

It was decided to make use of listeners from (a) U. K. and U. S. A., the two important countries where English is the mother tongue of the majority of the population, (b) India and Nigeria, two important Commonwealth countries in Asia and Africa, where English is widely used by educated people as a second language, (c) a European country - Germany - where English is learnt only as a foreign language, and (d) any other countries.

In all 178 voluntary listeners took part in the project. They were all educated people in the age range 18 to 64 and had reached at least the secondary school level of education. Some listeners took part in two or even three sittings. If each sitting is counted as a seperate listener, the total number of listeners amounts to 234.

4. 4. Procedures for Listening and Collection of Listeners' Responses

It was decided to have both individuals and groups as listeners. In all, 121 sittings were held with individual listeners and 113 listeners took part in group listening sessions.

In order to find out a suitable method for obtaining listeners' response to connected speech and measuring its intelligibility, some experimental investgation was necessary. The procedure finally adopted was to divide the speech into units, forming sense groups, of about ten words each, to play the recorded speech unit by unit, and to ask the listeners to reproduce what they heard. Individual listners were asked to repeat every word of what they heard and understood, and a record was kept of all the words they were not able to understand, and the substitutions they made. The listeners at a group sitting had to write down everything they had heard and understood.

The listening procedure adopted for the readings of the passages was the same, and each passage was divided into units of about ten words each.

The procedure for listening to isolated sentences and words was a simple matter. Each sentence and word was played back separately, and the listener asked to repeat it or write it down.

For the alternative choice word test every listener had to mark his responses on the form given to him.

4. 5. The Procedure for Calculating the Intelligibility Scores

After the listeners' responses had been obtained and had been compared with the original texts to find out mistakes, it was necessary to evolve a method of scoring for each test. It was decided that each unit should be treated as a whole and there should be no partial scores. It was not considered enough to check the recognition of certain key words only; instead it was necessary to insist on accurate reproduction as far as possible, because in a language like English part of the meaning is conveyed by the so-called 'structural' words that indicate the relationship between other

words, and if these words are missed, the rest of the unit cannot be properly understood. Inability to reproduce an unfamiliar proper name or abbreviation was, however, not considered a mistake. The number of units correctly understood was adopted as the intelligibility score and a percentage worked out.

5. Intelligibility Scores

5. 1. Discovery of General Trends

The intelligibility scores obtained during this research were based on the responses of 234 listeners. Each listener was required to make about 200 separate responses - one for each scoring unit, and the actual number of listener responses thus comes to nearly 46, 000.

No rigorous statistical treatment of the scores was attempted, because the project was in the nature of an exploration and the aim was to discover facts about the intelligibility of Indian English and not to formulate and test certain hypotheses. Moreover, the intention was to include among speakers a wide variety of Educated Indian English – and to take listeners from a wide cross-section of the educated people from U. K. and other countries. It was therefore not possible to form homogeneous groups of speakers and listeners, or to have identical groups, i. e., groups carefully balanced according to the education, intelligence, and background of the members. Such being the case, it was decided to attempt a common sense interpretation of the scores rather than adopt a statistical treatment Apart from the calculation of averages based on arithmetic means, and of mean deviations, no other statistical methods were used in this interpretation.

An examination of the lists of scores revealed, in the first place, that there was a wide variation in the level of intelligibility attained by different Inian speakers, in the intelligibility scores obtained with the same speaker by listeners from different countries, and even by listeners from the same country. This only reflects the wide variety that exists among human beings and their use of language. However, an attempt is made here to discover general trends that lie behind the apparent diversity visible on the surface.

5. 2. The Level of Intelligibility with British (R. P.) Speakers and British (R. P. – speaking) Listeners.

The average level of intelligibility among R. P. speakers varied from 100 percent in Part II (reading of the passage) to 95 percent in Part V (alternative choice word test), the over-all average being 97 percent.

5. 3. **The Level of Intelligibility with Indian Speakers and British Listeners.**

The average scores obtained by British listeners with each Indian speaker are given below :

Serial No.	Speaker No.	Mother Tongue	State	Intelligibility Scores (Percentages)					
				Part I Connected Speech	Part II Passage	Part III Sentences	Part IV Words	Part V Alternative Choice Word Test	Average
1	S 7	Hindi	Delhi	79	67	59	67	73	69
2	S 10	,,	Uttar Pradesh	87	68	72	77	73	75
3	S 19	,,	,, ,,	99	88	90	87	91	91
4	S 22	,,	,, ,,	79	87	70	87	88	82
5	S 24	,,	,, ,,	87	67	78	78	78	78
6	S 6	,,	Bihar	65	49	61	52	69	59
7	S 8	,,	,,	87	90	65	77	68	77
8	S 11	,,	,,	75	77	78	61	69	72
9	S 12	,,	,,	55	53	68	65	69	62
10	S 26	,,	Rajasthan	77	57	75	65	82	71
11	S 20	Telugu	Andhra Pradesh	48	42	54	61	61	53
12	S 21	,,	,, ,,	41	51	52	52	69	53
13	S 25	,,	,, ,,	67	71	71	80	78	73
14	S 15	Bengali	West Bengal	69	54	78	72	63	67
15	S 2	Tamil	Madras (Tamil Nadu)	59	58	56	64	61	60

Serial No.	Speaker No.	Mother Tongue	State	Intelligibility Scores (Percentages)					
				Part I Connected Speech	Part II Passage	Part III Sentences	Part IV Words	Part V Alternative Choice Word Test	Average
16	S 27	Urdu	Uttar Pradesh	82	69	80	81	85	79
17	S 23	,,	Bihar	70	86	79	76	91	80
18	S 28	,,	Andhra Pradesh	59	75	60	58	59	62
19	S 16	Gujarati	Maharashtra	82	86	83	73	63	77
20	S 1	Malayalam	Kerala	37	33	58	72	73	55
21	S 17	Punjabi	Delhi	65	47	47	57	67	57
22	S 18	,,	,,	97	95	97	99	89	95
23	S 14	,,	Rajasthan	91	79	77	78	72	79
24	S 4	Assamese	Assam	35	54	69	57	65	56
		Average		71	67	70	71	73	70
		Mean Deviation		15	14	10	10	8	10

The average score for the 24 Indian speakers varied from 73 percent in Part V (alternative choice word test) to 67 percent in Part II (reading of the passage), the overall average being 70 percent. Compared with the over-all average for British (R. P.) speakers (see Section 5.2.), this figure falls short of the 'norm' by 27 percent. This was to be expected, of course. British listeners would naturally understand R. P. speakers better than they would understand Indian speakers of English. The interesting fact is that, within Indian English, there are various levels of intelligibility ranging from 95 percent (S18), which is very close to the figure for British (R. P.) speakers' intelligibility, to a figure as low as 53 percent (S20 and S21). The conclusion is that it is perfectly possible to speak with an Indian accent and yet be as intelligible to educated British listeners as a British R. P. speaker. On the other hand there are Indian speakers who are only half intelligible to British listeners when they speak English.

Another important feature of the scores is that though individual speakers obtained varying scores in different tests, the average for the 24 Indian speakers was fairly constant from one test to another. This means that, over a wide sample, each of the five tests would be suitable for the measurement of intelligibility, even though each test was designed for a different purpose.

The mean deviation of scores on different tests varied from 15 on Part I (connected speech) to 8 on Part V (alternative choice word test). This suggests that the differences in the efficiency of different speakers lie much more in connected speech than in the maintenance of important phonological contrasts.

It would be possible to grade Indian speakers of English on the basis of their intelligibility to British listeners. The simplest grading procedure would be based on the average score for the five tests. We can divide the speakers into groups according to efficiency. As the average score is 70 plus and the mean deviation is 10, the best course would be to have five groups :

Group A	Scores 91-100
Group B	Scores 81-90
Group C	Scores 71-80
Group D	Scores 61-70
Group E	Scores 51-60

Groups A, B and C would be above average and Groups D and E below average

The two speakers in Group A — S18 and S19—happen to be Punjabi and Hindi speakers, but there are Punjabi and Hindi speakers in Group E as well (S17 and S6). This seems to indicate that the efficiency of Indian English does not depend on the speaker's mother-tongue. There are good and bad speakers of English, in the sense of 'better understood' and 'not so well understood', in every linguistic community.

The most efficient Indian speakers of English, that is, those found to be the most intelligible, were those who had either attended an English-medium school and had contact with Anglo-Indian and British teachers, or consciously tried to change their pronunciation by imitation of good models and systematic training in phonetics and spoken English. The least efficient group included people having different mother tongues and coming from different occupations. They all spoke English in ways typical of the particular regions they belonged to, and had made no effort to conform to any minimum standard of pronunciation based either on British R. P. or on the best forms of Indian English. The less efficient speakers were less intelligible in connected speech than in sentences and words.

5. 4. Intelligibility Scores Obtained with Indian Speakers and American Listeners

It was found that there was hardly any significant difference between the scores obtained with American and British listeners.

5. 5. Intelligibility Scores Obtained with Indian Speakers and Indian Listeners

7 Indian speakers having different mother tongues – Hindi, Telugu and Tamil – were listened to by a number of Indian listeners having different mother tongues – Hindi, Bengali, Urdu, Gujarati and Kashmiri. The speaker and the listener usually had different mother tongues, but this was not always the case. The over-all average score obtained was 74 percent, much lower than the figure of 97 percent obtained with British (R. P.) speakers and British (R.P.-speaking) listeners. This indicates that Indian English is much less efficient among Indians than R. P. is among speakers of that dialect.

There was no significant difference between the over-all average score obtained for the same Indian speakers with British and Indian listeners. This appears to indicate that, taking all the five tests together, British listeners understood Indian English almost as well as Indian listeners. On examining the scores for the different tests, however, we find that while

there was little difference in the scores for Parts III–V, the Indian listeners gained a significantly higher score in Part I (connected speech), but a significantly lower score in Part II (reading of the passage). This leads to an important conclusion that a listener's ability to understand a speaker depends to a very large extent on the content of the utterence. As the content of connected speeches was usually Indian and the phraseology employed was also typical of Indian English, the Indian listeners obtained a higher score. On the other hand, as the reading passages were typically English in content and idiom, the British listeners gained a higher score than even Indian listeners.

5. 6. Intelligibility Scores Obtained with Indian Speakers and Nigerian Listeners.

The scores obtained with Nigerian listeners were significantly lower throughout than those obtained with British listeners, except that in Part V (alternative choice word test) the difference was not so marked as in the other parts. The fact that Nigerian listeners understand Indian English much less well than British listeners is understandable. Nigerian English and Indian English have diverged from British English in different directions and they are now farther apart from each other than either is from the parent language — British English.

The scores reveal another important fact that the ability to maintain and hear distinctions between minimal pairs is not enough for intelligibility.

5. 7. Intelligibility Scores Obtained with Indian Speakers and German Listeners.

It was found that the German listeners understood Indian English less well than British listeners. This was particularly marked in Parts I and II. The conclusion is that it is features of connected speech that present special difficulties to German listeners. It may also be that the German listeners found it difficult to remember and reproduce the complete units in Parts I and II. Lado has pointed out that memory span is shorter in a foreign language than in the native language.[1]

6. A Phonological Description of Indian English.

An attempt is made here to describe, at the phonological and phonetic levels, the speech patterns of Indian speakers used in this research, and to find common features among them.

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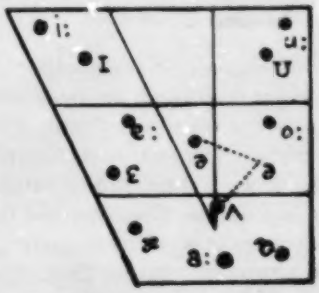
1. Lado, R., "Memory span as a factor in second language learning," *IRAL*, Heidelberg, 3 : 2, 1965, pages 123–9.

6. 1. The Vowel System of Indian English.

Indian English, in spite of all the variety that we notice from one linguistic group to another, from one region to another, and even from one speaker to another, retains a fairly uniform pattern. The pattern described here is based on a detailed analysis of the twenty-four Indian speakers' utterances used for this research.

Generally speaking, educated Indians have a system of eleven vowels in their English, the qualities being indicated by shaded areas in the conventional vowel diagram given here.

/ i: / as in **these**
/ ɪ / ,, ,, **bid**
/ e: / ,, ,, **gate**
/ ɛ / ,, ,, **bed**
/ æ / ,, ,, **bad**
/ a: / ,, ,, **card**
/ ɒ / ,, ,, **hot, all, horse**
/ o: / ,, ,, **home, force**
/ ʊ / ,, ,, **book**
/ u: / ,, ,, **rule, tube**
/ ə / ,, ,, **bus, bird, account**



Vowels in Indian English

/ ə / is realised as *[ə]* and *[ʌ]*, which are used indiscriminately.

In addition there are six vowel glides :

/ aɪ / as in **bite**
/ ɒɛ / ,, ,, **boil**
/ aʊ / ,, ,, **house**
/ ɪə / ,, ,, **cheer**
/ eə / ,, ,, **air**
/ ʊə / ,, ,, **poor**

The important differences between the vowel systems of British Received Pronunciation and Indian English are as follows :

(i) Indian English has monophthongs / e: / and / o: / in place of R. P. diphthongs / eɪ / and / əʊ /[1].

1. The symbols used for R. P. phonomes are the same as those in A. C. Gimson's *An Introduction to the Pronunciation of English* (Edward Arnold).

(ii) Indian English has only one phoneme / ə / corresponding to R. P. / ʌ /, / 3: / and / ə /.

(iii) Indian English has one phoneme / ɒ / corresponding to R. P. / ɒ / and / ɔ: /.

(iv) The qualities of some of the Indian English vowels are different from those in R. P.

(v) The distribution of vowels in Indian English sometimes differs from that in R. P.

Some of the common substitutions are listed below :

S. No.	*Nature of Substitution*	*Word*	*R. P.*	*Examples from Recorded Specimens of Indian English*
1.	Weak vowel not always	arrive	/ˌəˈraɪv/	[æˈraɪv][1]
	used in unaccented	bravest	/ˈbreɪvɪst/	[ˈbre:vɕst]
	syllables, not even in	different	/ˈdɪfrənt/	[ˈdɪfrɕnt]
	unaccented prefixes and suffixes.	introduce	/ ɪntrəˈdju:s/	[ɪntroˈdju:s][2]
		language	/ˈlæŋgwɪdʒ /	[ˈlæŋgwedʒ]
		Oxford	/ˈɒksfəd/	[ˈɒksford]
2.	Weak forms of words not	a	/ ə /	[e]
	always used in unaccented	from	/frəm/	[frɒm]
	positions.	of	/əv/	[ɒf]
3.	[i:] or [i] for R. P. /ɪ/	activities	/ækˈtɪvɪtɪz/	[ækˈtɪvɪti:z]
	at the end of words and	Daddy	/ˈdædɪ/	[ˈdædi]
	in their inflected forms.	studied	/ˈstʌdɪd/	[ˈstədi:d]
		worried	/ˈwʌrɪd/	[ˈvəri:d]
4.	[ar] for R. P./ɔ:/	rewarding	/rɪˈwɔ:dɪŋ/	[rɪˈvardɪŋ]
	in words spelt *wa–*	warden	/ˈwɔ:dn/	[ˈwardən]

1. Square brackets [ ] indicate a 'phonetic' transcription. The transcriptions of specimens of Indian English are phonetic in the sense that sub-phonemic variants are indicated.
2. The long vowels tend to get shortened in unaccented syllables.

S. No.	Nature of Substitution	Word	R. P.	Examples from Recorded Specimens of Indian English
5.	[ɒ:] or [ɔ] for R. P. /ɔ:/	all	/ ɔ:l /	[ɒ:l]
		ball	/bɔ:l/	[bɒ:l]
		called	/kɔ:ld/	[kɒ:ld]
		falls	/fɔ:lz/	[fɒ:ls]
		saw	/sɔ:/	[sɒ:]
		talking	/ˈtɔ:kɪŋ/	[ˈtɒkɪŋ]
		walk	/wɔ:k/	[vɒ:k]
6.	[ɒr] or [ɒ:r] for R. P. / ɔ: /	born	/bɔ:n/	[bɒrn] [bɒ:rn]
		form	/fɔ:m/	[fɒ:rm]
		orphan	/ˈɔ:fən/	[ˈɒrfən]
		record (n.)	/ˈrekɔ:d/	[ˈrɛkɒrd]
7.	[o:] or [o:r] for R. P./o:/	bored	/bɔ:d/	[bo:rd]
		course	/kɔ:s/	[ko:rs]
		four	/ fɔ: /	[fo:r]
		glorious	/ˈglɔ:rɪəs/	[ˈglo:rɪəs]
		more	/mɔ:/	[mo:r]
		ores	/ ɔ:z /	[o:rz]
		shore	/ ʃɔ: /	[ʃo:r]
8.	[ə] for R. P. /ʌ/	another	/ ə nʌ ə/	[ə nədər]
		come	/kʌm/	[kəm]
		one	/wʌn/	[wən]
9.	[ər] or [ʌr] for R. P. / 3:/	birds	/b3:dz/	[bərdz] [bʌrdz]
		first	/f3:st/	[fərst]
		hurt	[h3:t]	[hʌrt]
		purpose	[ˈp3:pəs]	[ˈpʌrpəz]
		research	/rɪˈs3:tʃ/	[rɪˈsərtʃ]
		service	[ˈs3:vɪs]	[ˈsʌrvɪs]
		third	[θ3:d]	[ˈthʌrd]
		university	[ju:nɪˈv3: sɪtɪ]	[ju:nɪˈvərsɪtɪ]
		working	/ˈw3:kɪŋ/	[ˈvərkɪŋ]

S.No.	Nature of Substitution	Word	R. P.	Examples from Recorded Specimens of Indian English
10.	[a] for R. P. /ə/ (final)	India	/ˈɪndɪə/	[ˈɪndɪa]
11.	/i:/ for R.P. /ɪə/	experiences	/ɪkˈspɪə rɪənsɪz	[ɛksˈpi:rɪ ɛnsɛz]
		period	/ˈpɪərɪəd/	[ˈpi:rɪ:d]
12.	/e:/ for R. P. /ɛə/	area	/ˈɛərɪə/	[ˈe:rɪa]
		parents	/ˈpɛərənts/	[ˈpe:rɛnts]
		various	/ˈvɛərɪəs/	[ˈve:rɪəs]
13.	/ɪə/ for R. P. /ɛə/	pears	/pɛəz/	[pɪərs]
14.	/u:/ or /u:r/ for R. P. /ʊə/	during	/ˈdjʊərɪŋ/	[dju:rɪŋ]
		tour	/tʊə/	[tu:r]

6.2 The Consonant System of Indian English

The following is a list of the 23 consonants in Indian English :

/p/ as in **pen** : voiceless, unaspirated, bilabial, plosive

/b/ ,, ,, **bag** : voiced, bilabial, plosive

/th̥/ ,, ,, **thank** : voiceless, aspirated, dental, plosive

/d̥/ ,, ,, **then** : voiced, dental, plosive

(/th̥/ and /d̥/ replace R. P. fricatives /θ/ and /ð/ respectively)

/t/ as in **take** : voiceless, unaspirated, alveolar (sometimes retroflex), plosive

/d/ ,, ,, **day** : voiced, alveolar (sometimes retroflex), plosive

/k/ ,, ,, **keep** : voiceless, unaspirated, velar, plosive

/g/ ,, ,, **gate** : voiced, velar, plosive

/tʃ/ ,, ,, **chair** : voiceless, palato-alveolar, affricate

/dʒ/ ,, ,, **join** : voiced, palato-alveolar, affricate (/tʃ/ and /dʒ/ are articulated with the tongue tip down and the front of the tongue making an alveolar and post-alveolar contact).

/f/ ,, ,, **face** : voiceless, labio-dental, fricative

/s/ ,, ,, **sea** : voiceless, alveolar, fricative

/z/ ,, ,, **zoo** : voiced, alveolar, fricative

/ʃ/ ,, ,, **shade** : voiceless, palato-alveolar, fricative

/ʒ/ ,, ,, **measure** : voiced, palato-alveolar, fricative
(/ ʃ / and / ʒ / are articulated with the tongue-tip down and the front of the tongue raised towards the post-alveolar region.)

/h/ ,, ,, **hand** : voiced, glottal, fricative

/m/ ,, ,, **make** : voiced, bilabial, nasal

/n/ ,, ,, **night** : voiced, alveolar, nasal

/ŋ/ ,, ,, **long** : voiced, velar, nasal

/l/ ,, ,, **lamp** : voiced, alveolar, lateral (only 'clear' variety used)

/v/ ,, ,, **vain, wait** : realised as [v] (voiced, labio-dental frictionless continuant) or a weakly rounded [w] (bilabial-velar semi-vowel)

[v] replaces R. P. / v / and / w /.

/r/ ,, ,, **rain** : voiced, post-alveolar frictionless continuant or alveolar flap (pronounced in all positions)

/j/ ,, ,, **yes** : voiced, unrounded, palatal, semi-vowel

The distribution of consonants in Indian English is not always the same as in R. P. Here are a few examples of divergences :

S.No.	*Nature of Substitution*	*Word*	*R. P.*	*Examples from Recorded Specimens of Indian English*
1.	/d/ for R. P. /t/ in inflectional suffix	asked	/ɑ:skt/	[a:skd]
		developed	/dɪveləpt/	[dɛvləpd]
		laughed	/lɑ:ft/	[la:fd]
		packed	/pækt/	[pækd]
		searched	/sə:tʃt/	[sʌrtʃd]
		traced	/treɪst/	[tre:sd]
2.	/f/ for R. P. /v/ in *of*	of	/ɒv/	[ɒf]
3.	[w] for R. P. /v/	advance	/ədvɑ:ns/	[ədwa:ns]
		have	/hæv/	[hæw]
		over	/əʊvə/	[o:wər]

S No.	Nature of Substiution	Word	R. P.	Examples fram Recorded Specimens of Indian English
4.	[v] for R. P. /v/	arrive	/əˈraɪv/	[əˈraɪv]
		even	/ˈiːvn/	[ˈiːvn]
		very	/ˈverɪ/	[ˈvɛri]
5.	/th/ for R. P. /θ/	north	/nɔːθ/	[nɒrth]
		path	/pɑːθ/	[pɑːth]
		thin	/θɪn/	[thɪn]
6.	/d/ for R. P. /ð/	breathe	/briːð/	[briːd]
		that	/ðæt/	[dæt]
7.	/z/ for R. P. /s/	conserva-tive	/kənˈsɜːvə-tɪv]	[kɒn zərvetɪv]
		loose	/luːs/	[luːz]
		purpose	/ˈpɜːpəs/	[ˈpərpəz]
8.	/s/ for R. P. /z/ in inflectional suffixes	dɒgs	/dɒgz/	[dɒgs]
		falls	/fɔːlz/	[fɔːls]
		keys	/kiːz/	[kiːs]
		temples	/ˈtemplz/	[ˈtempəls]
9.	/ən/ for syllabic /n/	butter	/ˈbʌtn/	[ˈbətən]
		person	/ˈpɜːsn/	[ˈpərsən]
		sudden	/ˈsʌdn/	[ˈsədən]
10.	/ŋg/ for R. P. /ŋ/ medially	singer	/ˈsɪŋə/	[ˈsɪŋgər]
11.	/əl/ for syllabic [l]	apples	/ˈæplz/	[ˈæpəls]
		metal	/ˈmetl/	[ˈmetəl]
		travel	/ˈtrævl/	[ˈtrəwəl]
12.	Omission of /j/	students	/ˈstjuːdnts/	[ˈstuːdents]
		year	/jɜː/, /jɪə/	[ɪər]

13. [ʋ] for R. P. /w/	way	/weɪ/	[ʋe:]
	wealth	/welθ/	[ʋelth]
	which	/wɪtʃ/	[ʋɪtʃ]
	wide	/waɪd/	[ʋaɪd]

6.3. Consonant Clusters : Difficulties

Some Indian speakers have difficulty with certain initial and final consonant clusters in English. As a result, one of the consonants is omitted or a vowel is added.

6.4. Elision of Syllables

Sometimes one or more syllables are elided altogether by Indian speakers.

Examples taken from recorded specimens of Indian English :

assistant	[ˈʌstənt]
government	[ˈgʊrmənt]
hereditary	[ˈherɪtərɪ]
institute	[ˈɪnstjut]
laboratory	[ləˈβɪrətrɪ]
oriental	[ˈɒrɪntəl]
university	[jʊˈnəsɪt]

6.5. Word Accent : Divergences from Native English

A common fault among Indian speakers is the incorrect accentuation of English words, that is, accenting them differently from the usual native English pattern.

Examples taken from recorded specimens of Indian English :

about	[əˈbaut]
character	[kæˈrəktər]
educated	[edʒuˈke:təd]
fortnight	[fɔ:tˈnaɪt]
hesitate	[hɛzɪˈte:t]
interesting	[ˈɪntrestɪŋ]

manage	[mæne:dʒ]
necessary	[nesəseri]
oriental	[ɒrɪntəl]
preparations	[prɪpəre:ʃənz]
record (noun)	[rɪkɔ:rd]
suitable	[sute:bl]

66. Sentence Stress, Rhythm and Intonation

The sentence stress in Indian English is not always in accordance with the normal R. P. pattern, and the characteristic English rhythm is not maintained. The division of speech into sense groups and tone groups is sometimes faulty, and pauses are made at wrong places.

The location of the intonation nucleus is not always at the place where it would be in normal English. The rising tone sometimes used at the end of statements must sound unusual to the R.P.-speaking listeners.

Some examples of incorrect accentuation, including wrong situation of the intonation nucleus, are given below :

1. Come and dine with us.

   (Ordinarily the nucleus would be on *dine*.)

2. Do what I tell you.

   (Ordinarily the nucleus would be on *tell*.)

3. Get me a cup of tea, please.

   (Ordinarily the falling nucleus would be on *tea*.)

4. I know what you mean.

   (The normal pattern would be :

   I know what you mean.)

---

1. The statements about the normality of the accentual pattern and the situation of the intonation nucleus are based on the patterns found to be most frequently used by a group of about twenty native English speakers. The tone marks used are based on those in books by W. Stannard Allen, Arnold, Gimson, Kingdon, Lee, O'Connor and Tooley.

5. Who were you talking to?

(The nucleus would ordinarily be on *talking*.)

6. There's nothing to be done about it.

(Ordinarily the nucleus would be on *done*.)

6.7 Phonetic Features Associated with the More Intelligible and the Less Intelligible Speakers.

It was found that the phonological systems used by the two most intelligible speakers—S18 and S19—were almost the same as those of most other Indian speakers, but there were very few 'mistakes', in the sense of divergences from native English, in the distribution of phonemes and in stress and intonation. S22 had more of such mistakes, but he spoke in a slow, careful and deliberate style.

Turning to the speakers in the least intelligible group, we found that while the actual system was not different from the general pattern in Indian English, there were in each case quite a large number of 'mistakes' in the distribution of vowels and consonants, and in word stress, sentence stress and intonation. What made these speakers less intelligible was the frequency of these mistakes. It is not true that the less intelligible speakers use a different inventory of vowel and consonant phonemes.

6-8. The Relation Between Rate of Speaking and Intelligibility

It is sometimes said that foreigners would be much better understood if only they spoke more slowly. The actual rate of speech for Part I of the recordings - connected speech – made for the present research was worked out for each speaker. It was calculated on the basis of the total time taken divided by the number of words produced. The result was, therefore, a measure of the information provided for the listener against the total time, including any pauses between words and sentences, rather than a timing of actual vocalization. The rate of speech for the 24 Indian speakers varied from 1.3 to 2.6 words per second, the average being 1.9. The average speed for 4 R. P. speakers was found to be 2.0 words per second. So there was hardly any significant difference between the average rate of speaking of Indian and British (R. P.) speakers. It was noticed that there were slow and fast speakers among the more intelligible as well as among the less intelligible speakers. The rate of speaking, evidently, was not a crucial factor in intelligibility.

7. Phonetic Features in Indian English Likely to Cause Unintelligibility to British Listeners

In order to find out what particular phonetic features in Indian English are likely to make it unintelligible to British listeners, it was necessary to examine the words actually missed or misunderstood by a majority of British listeners. The analysis given here is based on intelligibility tests conducted with 19 Indian speakers—10 Hindi speakers (1 from Delhi, 4 each from Uttar Pradesh and Bihar, and 1 from Rajasthan), 3 each Telugu and Urdu speakers, and 1 each Bengali, Tamil and Gujarati speaker.

7.1 Likely Causes of Unintelligibility in Connected Speech

The various phonetic features likely to make Indian English (connected speech) unintelligible to British listeners are listed below in descending order of frequency :

1. Stress on the wrong syllable of a word.

Examples :

Serial No.	*Words missed*	*Pronounced as*	*Listeners' Responses*
1.	antiquities	[ˌæntɪˈkwɪtɪz]	—
2.	Banaras, they say,	[bəˈnaːrəs ˌdeː seː]	when I was ...
3.	divisions	[ˈdɪvɪʒənz]	regions
4.	education	[ˌedʒuˈkeʃən]	—
5.	hereditary (My hereditary business .....)	[ˈherɪtərɪ]	inherited
6.	industries	[ˈɪndʌstrɪz]	
7.	literature	[lɪˈtreːtʃə]	—
8.	rendered (they have rendered for the whole country.)	[renˈdaːd]	endured endowed
9.	suitable (is not suitable for the laboratory...)	[suˈtebl]	the level

Serial No.	*Words missed*	*Pronounced as*	*Listeners' Responses*
10.	themselves (talking among themselves)	[ˈd̥ɒmzɛlvz]	damsels

2. Word ordinarily stressed in connected speech left unstressed

Examples :

1.	Arts College	[ˈats kɒlɪdʒ] (no stress on College)	—
2.	Central Institute of English	[ˈsɛntrəl ɪnstʃut ɒf ˈɪŋglɪʃ] (no stress on 'institute')	—
3.	several other (several other things)	[ˈsɛːrlə̥der] (no stress on 'other')	similar
4.	urban centres	[ˈʌrβən sɛntərs] (no stress on 'centres')	—

3. Substitution of [d̥] for /ð/.

Examples :

1.	otherwise	[ˈə̥dervaɪz]	—
2.	their (their merger)	[d̥ɛer]	—
3.	themselves (talking among themselves)	[ˈd̥ɒmzɛlvz]	damsels
4.	Though (Though I've got a ...)	[d̥eʊ]	now
5.	with others	[vɪd ə̥dərz]	—

4. Substitution of [v] for/v/.

Examples :

1.	cover	[kəvər]	—
2.	developed	[dɛvɛləpd]	—

Serial No.	*Words missed*	*Pronounced as*	*Listeners' Responses*
3.	eleventh	[ɪ'levənth]	—
4.	give	[gɪv]	—
5.	natives	['netɪvz)	nephews
6.	previously	['prɪvɪəslɪ]	—
7.	service	['sʌrvɪs]	—

5. Substitution of [v] for /w/

Examples :

1.	otherwise	[ədərvaɪz]	—
2.	want (I want to give an...)	[vant]	—
3.	were (People were quite nice...)	[vɐər]	are
4.	What (What else can I say ?)	[vat]	—
5.	wide (It's a very wide topic...)	[vaɪd]	—

6. Unfamiliar proper names

Examples :

1.	Banaras	[bɐnarəs]	—
2.	Guilford (Guilford Street)	[gɪlford]	Russell
3.	Meerut	[merəth]	—
4.	Telugu	[teligu]	—

7. Wrong Usage

Examples :

1.	be [I will be back to my country.)	[bɪ]	go

Serial No.	Words missed	Pronounced as	Listeners Responses
2.	movements (People are very quick movements.)	[məumənts[	—
3.	rather experts (Quite a few people were engaged, rather experts.)	[radər ekspə:ts]	by their experience
4.	straight (draw a good straight life)	[stret]	[still]
5.	when (when as early back as)	[vɛn]	went

8. Use of short [e] for R. P./eɪ/

Examples :

1.	A Grade	[e gred]	a grade
2.	great change	[gret tʃend3]	—
3.	M. A.	[ɛme]	—
4.	name	[nem]	—
5.	paint	[pent]	felt

9. Elision of one or more syllables

Examples :

1.	Assistant	[ʌstənt]	—
2.	botany	[bɒ:tnɪ]	about me
3.	engineering	[ɛn nɪərɪŋ]	—
4.	Institute	[ɪnstjut]	—
5.	minimum (mibimum qualification)	[mɪnɪm]	main

10. Use of unaspirated/p/,/t/,/k/ in stressed initial positions

Examples :

1.	crores	[kro:rz]	groves
2.	paint	[pent]	felt
3.	Patna	[pætna]	but
4.	touch	[tʌtʃ]	Dutch

Serial No.	*Words missed*	*Pronounced as*	*Lisieners Responses*

7.2 Likely Cause of Unintelligibility in the Reading of Passages

Stress on the wrong syllable of a word

Examples:

1.	hesitate	[hɛdzɪteːt]	had a
2.	invariably	[ɪnveɪɪebɪɪ]	usually
3.	Richard	[rɪtʃaːrd]	The child

7.3 Likely Causes of Unintelligibility in Sentence Material

1. Mistakes in reading: substitution of one word for another; omission of an inflectional suffix.

Examples :

1.	bought (I've bought two pears.)	brought	brought
2.	can (That cart can be dangerous.)	can't	can't
3.	didn't (We didn't have any leisure.)	don't	don't
4.	fans (Let's get some new fans.)	fan	fan
5.	get (Get me a cup of tea please.)	give	give
6.	have (We have four steel plants.)	had	had
7.	like your (I like your white drsss.)	dislike your	dislike a
8.	needn't (We needn't wait now.)	don't	don't

Serial No.	*Words missed*	*Pronounced as*	*Lisieners Responsos*
9.	pears (I've bought two pears.)	peas	peas
10.	the west (He's lived in the west.)	[dɪs vest]	this vest

2. Substitution of [ʋ] for /v/

Examples:

1.	five (He's five feet tall.)	[faɪʋ]	-
2.	Have you (Have you found him?)	[hæʋju]	I have
3.	Love and... (Love and service)	[lʌʋh ən]	longer
4.	service (Love and service)	[sa:ʋɪs]	sadness
5.	veil (You must have seen that veil.)	[ʋe:l]	whale
6.	We've (We've searched the whole place.)	[ʋɪʋ]	We We'll

3. Substitution of / s / for / z / in inflectiona] suffixes and other words

Examples :

1.	holes (There were holes all over.)	[ho:ls]	—
2.	knees (His knees got hurt.)	[ni:s]	—
3.	peas (Let's have some peas.)	[pi:s]	peace
4.	zoo (That zoo is ...)	[su:]	—

Serial No.	*Words missed*	*Pronounced as*	*Listeners Responses*
	4. Choice by the listener of a word that is more likely in the context		
	Examples :		
1.	boss (Has the boss arrived yet?)	[bɔ:s] bɔs]	bus post
2.	guards (It all depends on the guards.)	[ga:ds]	gods
3.	hut (John hasn't even a hut.)	[hʌt]	hat
4.	lock (His lock wasn't very good).	[lɒ:k]	luck
	7.4. Likely Causes of Unintelligibility in Word Material		
	1. Substitution of [th̥], [t̥] or [t [for /θ/		
	Examples :		
1.	teeth	[ti:th̥]	teat teak heat deed deep
		[ti:t̥]	teat
2.	thin	[thɪn]	tin
3.	three	[th̥ri:] [t̥ri:]	tree
	2. Lack of aspiration in voiceless plosives		
	Examples:		
1.	cough	[kʌf]	golf
2.	inquire	[ɪnkwaʌ]	
3.	keys	[ki:s]	geese
4.	pull	[pʊl]	bull
5.	requests	[rɪkʏɛs]	regress

Serial No.	*Words missed*	*Pronounced*	*Listeners' Responses*
6.	teeth	[ti:th]	deed deep
7.	tests	[tɛsts]	desks
8.	train	[tre:n]	drain

3. Stress on the wrong syllable of a word

Examples:

1.	about	[ɛbaʊt]	come out
		[ɛbɔʊt]	elbow
2.	arrive	[ɛraɪv]	arrow
3.	atmosphere	[ɛtmɒsfɪə]	must fear
		[mɒsfɪə]	moss, Moscow
4.	character	[kærektər]	director
5.	correct	[kʌrɛkt]	carried
6.	decay	[dɪke]	ticket
7.	defence	[dɪfɛns]	difference
8.	prefer	[prɪfər]	fearful
		[prefər]	briefer

4. Substitution of [*v*] for / v /.

Examples:

1.	arrive	[əraɪv]	ride
		[ɛraɪv]	rail
2.	twelve	[twɛlv]	dwell
		[tvɛlv]	
3.	vehicle	[vʌhɪkəl]	welcome
4.	veil	[ve:l]	whale, wail
		[vɪ:l]	will, wheel

Serial No.	*Words missed*	*Pronounced as*	*Listeners' Responses*
5. Substitution of / s / for / z in inflectional suffix			
Examples :			
1.	fears	[fɪərs]	fierce
2.	jugs	[dʒəgs]	just, jacks
3.	keys	[kiːs]	geese

7. 5. Likely Causes of Unintelligibility in the Alternative Choice Word Test

1. Stress on the wrong syllable of a word subject to functional stress shift

Examples :

1.	absent (v.)	[ˈæbsɛnt]	absent (adj.)
		[ˈæbsnt]	
2.	conduct (v.)	[ˈkendəkt]	conduct (n.)
		[ˈkɤndəkt]	
		[ˈkʌndʌkt]	
3.	object (v.)	[ˈɒbdʒɛkt]	object (n.)
		[ˈɒbdʒɪkt]	
4.	present (v.)	[ˈprɛzɛnt]	present (adj.)
		[ˈprezn̩t]	
		[ˈprɛzənt]	
5.	record (n.)	[rɪkɔːd]	record (v.)
		[rɪkɒːrd]	

2. Substitution of [th] or [t] for / θ /

Examples :

1.	thin	[thɪn]	tin
2.	thought	[thɔːt]	taught
		[thɒːt]	
		[tɒːt]	

3. Substitution of / s/ for / z / in inflectional suffixes

Examples

1.	falls	[fɒls]	false
		[fɒːls]	
		[fɔːls]	

Serial No.	*Words missed*	*Pronounced as*	*Listeners' Responses*
2.	peas	[pi:s]	peace
4.	**[ɒ] made too long in 'cot'**		
	cot	[kɒ:t]	caught
5.	**Substitution of [d̪ [for [ð] in 'they'**		
	they	[de̪]	day
		[de̪:]	
6.	**Lack of aspiration in initial / p / and / k /**		
1.	cot	[kɒ:tə] [kɔt]	got
2.	pack	[pæk]	back

8. Suggestions for the Improvement of Indian English

The following suggestions are offered for improving the intelligibility of Indian English:

i) The correct accentual patterns of English words should be maintained.

ii) The correct patterns of sentence stress and rhythm should be maintained.

iii) The consonants / θ / , / ð / , / v / , and / w / should be acquired.

iv) Special care should be taken in pronouncing Indian proper names.

v) The articulation of sounds should be clear.

vi) The normal English usage in respect of vocabulary and grammar should be maintained.

vii) The English vowels should be given correct length. If Indian [e] and [o] are used for R. P. / eɪ / and / əu / , they should be sufficiently long. / ɒ / should be short in words like 'cot'.

viii) There should be no elision of syllables.

ix) The voiceless plosives / p / , / t / , / k / should be aspirated in stressed initial positions.

x) The reading of a text should be done carefully, avoiding substitutions and omissions.

xi) The correct distribution of / s / and / z / in inflectional suffixes and other words should be maintained.

It is hoped that this investigation will encourage further studies in the field of intelligibility testing that will eventually help to establish certain minimum standards of mutual intelligibility among the various dialects of English spoken in the world. This is a valuable contribution which phoneticians can make towards more efficient communication. Such an improvement in linguistic communication will provide a basis for better understanding among peoples who speak English as the first or as a second language.